



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,078	11/03/2000	David Forrest Squires	XXT-064 (D/A 147)	6149
7590	04/21/2005		EXAMINER	
PATRICK R. ROCHE FAY, SHARPE, FAGAN MINNICH & McKEE LLP 1100 SUPERIOR AVENUE 7TH FLOOR CLEVELAND, OH 44114-2518			PWU, JEFFREY C	
			ART UNIT	PAPER NUMBER
			2143	
DATE MAILED: 04/21/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/706,078	SQUIRES ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeffrey C. Pwu	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12/2704 Amendment/RCE.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1, 3, 6-9, 11, 14,-21, 25-26, and 29-30 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1, 3, 6-9, 11, 14,-21, 25-26, and 29-30 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 17-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For a claim to be statutory under 35 USC 101 the following two conditions must be met:

- 1) In the claim, the practical application of an algorithm or idea result in a useful, concrete, tangible result, AND
- 2) The claim provides a limitation in the technological art that enables a useful, concrete, tangible result.

As to the technology requirement, note MPEP Section iV 2(b). Also note In Re Waldbaum, 173USPQ 430 (CCPA 1972) which teaches “useful arts” is synonymous with “technological arts”. In re Musgrave, 167USPQ 280 (CCPA1970), In re Johnston, 183USPQ 172 (CCPA 1974), and In re Toma, 197USPQ 852 (CCPA 1978), all teach a technological requirements.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3, 6-9, 11, 14-26, and 29-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 lacks written description in the description of autonomous cells. It is unclear of what is an autonomous cell and its relationship with a plurality of devices and resources. Applicant's definition of autonomous cell only calls for a logical grouping of resources capable of entirely completing a document processing job from start to finish entirely within the autonomous cell. It is vague and indefinite because it is unclear how does a cell logically groups resources and completing the job.

Claim 6 lacks written description of the terms "optimal lot sizes" and "optimal utilization", the specification lacks written disclosure on its relationship how to determine and analyze a workflow to be "optimal lot sizes" and "optimal utilization".

Claim 17 lacks written description in the step of "identifying maximum capacity of each of the available cells to print the product-type", "identifying current loading of each of the available cells to print product-type" The specification is unclear of how to identify a current loading of each of the available cells to determine a maximum capacity and current loading of each available cells.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 recites the limitation "at least some devices". There is insufficient antecedent basis for this limitation in the claim.

7. Claim 1 recites the limitation "said autonomous cell" in "a plurality of autonomous cells..., ...within said autonomous cell". There is insufficient antecedent basis for this limitation in the claim.

8. Claim 1 recites the limitation "said autonomous sub-job ". There is insufficient antecedent basis for this limitation in the claim.

9. Claim 9 recites the limitation "said autonomous cell". There is insufficient antecedent basis for this limitation in the claim.

10. Claim 9 recites the limitation "said sub-job". There is insufficient antecedent basis for this limitation in the claim.

#### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1, 3, 6-9, 11, 14,-21, 25-26, 29-30 are rejected under 35 U.S.C. 102(e) as being unpatentable over Bengton (US 6,728, 947).

Bengton teaches a print workflow system and method for coordinating production of document processing jobs, said system comprising:

a plurality of autonomous cells (12), wherein each cell is comprised of a plurality of devices and resources at least some devices and resources performing distinct operations from one another, and that are configured to be capable of entirely completing at least one type of document processing job within said autonomous cell such that there is no dependence upon other cells for completing the jobs; (col.5, lines 1-60; Each processing device 12 executes one or more of the process steps specified in the workflow file)

a workflow mapping module that determines workflow for a selected one of said document processing jobs; (22)

a job decomposition module for splitting the selected document into sub-jobs that are accomplished by given ones of the autonomous cells; (16)

a cell assignment module for assigning said sub-jobs to said given ones of the autonomous cells capable of accomplishing entire said sub-job; (col.15, lines 53-col.16, line 12);and

a product cell controller at a selected one of the given cells for receiving at least one of said autonomous sub-job and for further splitting said job into lots for processing among said plurality of devices in said selected autonomous cell; (116a, 116b)

a storage device for holding information regarding capacities and capabilities of said cells and for storing information regarding workflow of each document processing job said workflow comprising a sequence of operations needed to be performed to accomplish the selected document processing job; (20)

said product cell controllers send authorization in the form of "kanbans" to upstream devices calling for said upstream devices to supply said cell devices with next said lot and wherein said assigned "kanbans" are released as said lots are processed and said assigned "kanbans" become available for future authorization of future lots. (see fig.3, Sample workflow to print a file job request);and partitioning document processing devices and resources into a plurality of autonomous cells capable of entirely completing at least one type of document processing job within said autonomous cell such that there is no dependence upon other cells for completing the job. (12a, 12b, 12c... )

***Response to Arguments***

13. Applicant's arguments with respect to claims 1, 3, 6-9, 11, 14,-21, 25-26, and 29-30 have been considered but are moot in view of the new ground(s) of rejection.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey C. Pwu whose telephone number is 571-272-6798. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



April 15, 2005

JEFFREY PWU  
PRIMARY EXAMINER